JUN 1 9 2003



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/965,640A

DATE: 06/12/2003 TIME: 14:30:48

```
3 <110> APPLICANT: Sims, John E.
 5 <120> TITLE OF INVENTION: IL-1 DELTA DNA AND POLYPEPTIDES
 7 <130> FILE REFERENCE: 0315-C
 9 <140> CURRENT APPLICATION NUMBER: 09/965,640A
10 <141> CURRENT FILING DATE: 2001-09-27
12 <150> PRIOR APPLICATION NUMBER: 09/612,921
13 <151> PRIOR FILING DATE: 2000-07-10
15 <150> PRIOR APPLICATION NUMBER: 60/071,074
16 <151> PRIOR FILING DATE: 1998-01-09
18 <150> PRIOR APPLICATION NUMBER: 60/087,393
19 <151> PRIOR FILING DATE: 1998-06-01
21 <160> NUMBER OF SEQ ID NOS: 11
23 <170> SOFTWARE: PatentIn version 3.2
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 468
                                                      ENTERED
27 <212> TYPE: DNA
28 <213> ORGANISM: Mus musculus
31 <220> FEATURE:
32 <221> NAME/KEY: CDS
33 <222> LOCATION: (1)..(468)
35 <400> SEQUENCE: 1
36 atg atg gtt ctg agt ggg gca cta tgc ttc cga atg aag gat tca gcc
                                                                          48
37 Met Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala
                                       10
40 ttq aag gta ctg tat ctg cac aat aac cag ctg ctg gct gga gga ctg
                                                                          96
41 Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu
                                   25
44 cac gca gag aag gtc att aaa ggt gag gag atc agt gtt gtc cca aat
                                                                         144
45 His Ala Glu Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn
           35
                               40
48 cgg gca ctg gat gcc agt ctg tcc cct gtc atc ctg ggc gtt caa gga
                                                                         192
49 Arg Ala Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly
                           55
52 gga agc cag tgc cta tct tgt ggg aca gag aaa ggg cca att ctg aaa
                                                                         240
53 Gly Ser Gln Cys Leu Ser Cys Gly Thr Glu Lys Gly Pro Ile Leu Lys
54 65
                       70
                                           75
                                                                80
56 ctt gag cca gtg aac atc atg gag ctc tac ctc ggg gcc aag gaa tca
                                                                         288
57 Leu Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser
                                       90
                   85
60 aag age tte ace tte tae egg egg gat atg ggt ett ace tee age tte
                                                                         336
61 Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe
              100
                                   105
64 gaa too got goo tao coa ggo tgg tto oto tgo aco toa cog gaa got
                                                                         384
```

RAW SEQUENCE LISTING DATE: 06/12/2003 PATENT APPLICATION: US/09/965,640A TIME: 14:30:48

65 Glu Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Ser Pro Glu Ala	
66 115 120 125	
68 gac cag cct gtc agg ctc act cag atc cct gag gac ccc gcc tgg gat	432
69 Asp Gln Pro Val Arg Leu Thr Gln Ile Pro Glu Asp Pro Ala Trp Asp	
70 130 135 140	
72 gct ccc atc aca gac ttc tac ttt cag cag tgt gac	468
73 Ala Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp	
74 145 150 155	
77 <210> SEQ ID NO: 2	
78 <211> LENGTH: 156	
79 <212> TYPE: PRT	
80 <213> ORGANISM: Mus musculus	
82 <400> SEQUENCE: 2	
84 Met Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala	
85 1 5 10 15	
88 Leu Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu 89 20 25 30	
92 His Ala Glu Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn	
93 35 40 45	
96 Arg Ala Leu Asp Ala Ser Leu Ser Pro Val Ile Leu Gly Val Gln Gly	
97 50 55 60	
100 Gly Ser Gln Cys Leu Ser Cys Gly Thr Glu Lys Gly Pro Ile Leu Lys	
101 65 70 75 80	
104 Leu Glu Pro Val Asn Ile Met Glu Leu Tyr Leu Gly Ala Lys Glu Ser	
105 85 90 95	
108 Lys Ser Phe Thr Phe Tyr Arg Arg Asp Met Gly Leu Thr Ser Ser Phe	
109 100 105 110	
112 Glu Ser Ala Ala Tyr Pro Gly Trp Phe Leu Cys Thr Ser Pro Glu Ala	
113 115 120 125	
116 Asp Gln Pro Val Arg Leu Thr Gln Ile Pro Glu Asp Pro Ala Trp Asp	
117 130 135 140	
120 Ala Pro Ile Thr Asp Phe Tyr Phe Gln Gln Cys Asp	
121 145 150 155	
124 <210> SEQ ID NO: 3	
125 <211> LENGTH: 468	
126 <212> TYPE: DNA	
127 <213> ORGANISM: Homo sapiens 130 <220> FEATURE:	
130 <220> FEATURE: 131 <221> NAME/KEY: CDS	
131 <2212 NAME/ REI: CDS 132 <222> LOCATION: (1)(468)	
132 <222 LOCATION: (1):.(400) 134 <400> SEQUENCE: 3	
135 atg gtc ctg agt ggg gcg ctg tgc ttc cga atg aag gac tcg gca ttg	48
136 Met Val Leu Ser Gly Ala Leu Cys Phe Arg Met Lys Asp Ser Ala Leu	40
137 1 5 10 15 15 15 15 15 15 15 15 15 15 15 15 15	
139 aag gtg ctt tat ctg cat aat aac cag ctt cta gct gga ggg ctg cat	96
140 Lys Val Leu Tyr Leu His Asn Asn Gln Leu Leu Ala Gly Gly Leu His	2.4
141 20 25 30	
143 gca ggg aag gtc att aaa ggt gaa gag atc agc gtg gtc ccc aat cgg	144
144 Ala Gly Lys Val Ile Lys Gly Glu Glu Ile Ser Val Val Pro Asn Arg	

RAW SEQUENCE LISTING DATE: 06/12/2003 PATENT APPLICATION: US/09/965,640A TIME: 14:30:48

145	35							40					45				
147	tgg	ctg	gat	gcc	agc	ctg	tcc	ccc	gtc	atc	ctg	ggt	gtc	cag	ggt	gga	192
												Gly					
149		50					55					60					
151	agc	cag	tgc	ctg	tca	tgt	ggg	gtg	ggg	cag	gag	ccg	act	cta	aca	cta	240
152	Ser	Gln	Cys	Leu	Ser	Cys	Gly	Val	Gly	Gln	Glu	Pro	Thr	Leu	Thr	Leu	
153	65					70					75					80	
155	gag	cca	gtg	aac	atc	atg	gag	ctc	tat	ctt	ggt	gcc	aag	gaa	tcc	aag	288
156	Glu	Pro	Val	Asn	Ile	Met	Glu	Leu	Tyr	Leu	Gly	Ala	Lys	Glu	Ser	Lys	
157					85					90					95		
												acc					336
	Ser	Phe	Thr		Tyr	Arg	Arg	Asp	Met	Gly	Leu	Thr	Ser	Ser	Phe	Glu	
161				100					105					110			
												gtg					384
	Ser	Ala		Tyr	Pro	Gly	Trp		Leu	Cys	Thr	Val		Glu	Ala	Asp	
165			115					120					125				
												ggt					432
	Gln		Val	Arg	Leu	Thr	Gln	Leu	Pro	Glu	Asn	Gly	Gly	Trp	Asn	Ala	
169		130					135					140					
	CCC											tag					468
	Pro	Ile	Thr	Asp	Phe	-	Phe	Gln	Gln	Cys							
	145					150					155						
	<210																
	<21:				55												
170	<212> TYPE: PRT																
179	<213	3> OI	RGAN	ISM:		sap	oiens	3									
179 181	<213 <400	3> OI 0> SI	RGANI EQUEN	SM: NCE:	4	_							_			_	
179 181 183	<213 <400 Met	3> OI 0> SI	RGANI EQUEN	SM: NCE:	4 Gly	_			Phe		Met	Lys	Asp	Ser		Leu	
179 181 183 184	<213 <400 Met 1	3> OI 0> SI Val	RGANI EQUEI Leu	ISM: NCE: Ser	4 Gly 5	Ala	Leu	Cys		10					15		
179 181 183 184 187	<213 <400 Met 1 Lys	3> OI 0> SI Val	RGANI EQUEI Leu	ISM: NCE: Ser Tyr	4 Gly 5	Ala	Leu	Cys	Gln	10		Lys Ala		Gly	15		
179 181 183 184 187	<213 <400 Met 1 Lys	3> OF 0> SE Val Val	RGANI EQUEN Leu Leu	SM: NCE: Ser Tyr 20	4 Gly 5 Leu	Ala His	Leu Asn	Cys Asn	Gln 25	10 Leu	Leu	Ala	Gly	Gly 30	15 Leu	His	
179 181 183 184 187 188	<213 <400 Met 1 Lys	3> OF 0> SE Val Val	RGANI EQUEN Leu Leu Lys	SM: NCE: Ser Tyr 20	4 Gly 5 Leu	Ala His	Leu Asn	Cys Asn Glu	Gln 25	10 Leu	Leu		Gly Val	Gly 30	15 Leu	His	
179 181 183 184 187 188 191	<213 <400 Met 1 Lys	3> OH 0> SH Val Val Gly	RGANI EQUEN Leu Leu Lys 35	SM: NCE: Ser Tyr 20 Val	4 Gly 5 Leu Ile	Ala His Lys	Leu Asn Gly	Cys Asn Glu 40	Gln 25 Glu	10 Leu	Leu Ser	Ala Val	Gly Val 45	Gly 30 Pro	15 Leu Asn	His Arg	
179 181 183 184 187 188 191 192 195	<213 <400 Met 1 Lys	3> OH 0> SH Val Val Gly Leu	RGANI EQUEN Leu Leu Lys 35	SM: NCE: Ser Tyr 20 Val	4 Gly 5 Leu Ile	Ala His Lys	Leu Asn Gly Ser	Cys Asn Glu 40	Gln 25 Glu	10 Leu	Leu Ser	Ala Val Gly	Gly Val 45	Gly 30 Pro	15 Leu Asn	His Arg	
179 181 183 184 187 188 191 192 195 196	<213 <400 Met 1 Lys Ala Trp	3> OH 0> SH Val Val Gly Leu 50	EQUEN Leu Leu Lys 35 Asp	ISM: NCE: Ser Tyr 20 Val	4 Gly 5 Leu Ile Ser	Ala His Lys Leu	Leu Asn Gly Ser 55	Cys Asn Glu 40 Pro	Gln 25 Glu Val	10 Leu- Ile Ile	Leu Ser Leu	Ala Val Gly 60	Gly Val 45 Val	Gly 30 Pro Gln	15 Leu Asn Gly	His Arg Gly	
179 181 183 184 187 188 191 192 195 196 199	<213 <400 Met 1 Lys Ala Trp Ser	3> OH 0> SH Val Val Gly Leu 50	EQUEN Leu Leu Lys 35 Asp	ISM: NCE: Ser Tyr 20 Val	4 Gly 5 Leu Ile Ser	Ala His Lys Leu Cys	Leu Asn Gly Ser 55	Cys Asn Glu 40 Pro	Gln 25 Glu Val	10 Leu- Ile Ile	Leu Ser Leu Glu	Ala Val Gly	Gly Val 45 Val	Gly 30 Pro Gln	15 Leu Asn Gly	His Arg Gly Leu	
179 181 183 184 187 188 191 192 195 196 199 200	<213 <400 Met 1 Lys Ala Trp Ser 65	3> OF 0> SE Val Val Gly Leu 50 Gln	EQUENT Leu Leu Lys 35 Asp	ISM: NCE: Ser Tyr 20 Val Ala Leu	4 Gly 5 Leu Ile Ser	Ala His Lys Leu Cys 70	Leu Asn Gly Ser 55 Gly	Cys Asn Glu 40 Pro Val	Gln 25 Glu Val	10 Leu- Ile Ile Gln	Leu Ser Leu Glu 75	Ala Val Gly 60 Pro	Gly Val 45 Val Thr	Gly 30 Pro Gln Leu	15 Leu Asn Gly Thr	His Arg Gly Leu 80	
179 181 183 184 187 188 191 192 195 196 199 200 203	<213 <400 Met 1 Lys Ala Trp Ser 65	3> OF 0> SE Val Val Gly Leu 50 Gln	EQUENT Leu Leu Lys 35 Asp	ISM: NCE: Ser Tyr 20 Val Ala Leu	4 Gly 5 Leu Ile Ser Ser	Ala His Lys Leu Cys 70	Leu Asn Gly Ser 55 Gly	Cys Asn Glu 40 Pro Val	Gln 25 Glu Val	10 Leu- Ile Ile Gln Leu	Leu Ser Leu Glu 75	Ala Val Gly 60	Gly Val 45 Val Thr	Gly 30 Pro Gln Leu	15 Leu Asn Gly Thr	His Arg Gly Leu 80	
179 181 183 184 187 188 191 192 195 196 199 200 203 204	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu	3> OF Val Val Gly Leu 50 Gln Pro	EQUEN Leu Leu Lys 35 Asp Cys	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn	Gly 5 Leu Ile Ser Ser Ile 85	Ala His Lys Leu Cys 70 Met	Leu Asn Gly Ser 55 Gly Glu	Cys Asn Glu 40 Pro Val Leu	Gln 25 Glu Val Gly Tyr	10 Leu Ile Ile Gln Leu 90	Leu Ser Leu Glu 75 Gly	Ala Val Gly 60 Pro	Gly Val 45 Val Thr	Gly 30 Pro Gln Leu Glu	15 Leu Asn Gly Thr Ser 95	His Arg Gly Leu 80 Lys	
179 181 183 184 187 188 191 192 195 196 199 200 203 204 207	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu	3> OF Val Val Gly Leu 50 Gln Pro	EQUEN Leu Leu Lys 35 Asp Cys	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe	Gly 5 Leu Ile Ser Ser Ile 85	Ala His Lys Leu Cys 70 Met	Leu Asn Gly Ser 55 Gly Glu	Cys Asn Glu 40 Pro Val Leu	Gln 25 Glu Val Gly Tyr Met	10 Leu Ile Ile Gln Leu 90	Leu Ser Leu Glu 75 Gly	Ala Val Gly 60 Pro	Gly Val 45 Val Thr	Gly 30 Pro Gln Leu Glu Ser	15 Leu Asn Gly Thr Ser 95	His Arg Gly Leu 80 Lys	
179 181 183 184 187 188 191 192 195 196 199 200 203 204 207 208	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu Ser	3> OI 0> SI Val Val Gly Leu 50 Gln Pro	EQUENT Leu Leu Lys 35 Asp Cys Val	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe 100	Gly 5 Leu Ile Ser Ser Ile 85 Tyr	Ala His Lys Leu Cys 70 Met	Leu Asn Gly Ser 55 Gly Glu Arg	Cys Asn Glu 40 Pro Val Leu Asp	Gln 25 Glu Val Gly Tyr Met 105	10 Leu- Ile Ile Gln Leu 90 Gly	Leu Ser Leu Glu 75 Gly Leu	Ala Val Gly 60 Pro Ala Thr	Gly Val 45 Val Thr Lys Ser	Gly 30 Pro Gln Leu Glu Ser 110	15 Leu Asn Gly Thr Ser 95 Phe	His Arg Gly Leu 80 Lys Glu	
179 181 183 184 187 188 191 192 195 196 199 200 203 204 207 208 211	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu Ser	3> OI 0> SI Val Val Gly Leu 50 Gln Pro	EQUENT Leu Leu Lys 35 Asp Cys Val Thr	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe 100	Gly 5 Leu Ile Ser Ser Ile 85 Tyr	Ala His Lys Leu Cys 70 Met	Leu Asn Gly Ser 55 Gly Glu Arg	Cys Asn Glu 40 Pro Val Leu Asp Phe	Gln 25 Glu Val Gly Tyr Met 105	10 Leu- Ile Ile Gln Leu 90 Gly	Leu Ser Leu Glu 75 Gly Leu	Ala Val Gly 60 Pro	Gly Val 45 Val Thr Lys Ser Pro	Gly 30 Pro Gln Leu Glu Ser 110	15 Leu Asn Gly Thr Ser 95 Phe	His Arg Gly Leu 80 Lys Glu	
179 181 183 184 187 188 191 192 195 196 200 203 204 207 208 211 212	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu Ser Ser	3> OI 0> SI Val Val Gly Leu 50 Gln Pro Phe	EQUENT Leu Leu Lys 35 Asp Cys Val Thr Ala	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe 100 Tyr	Gly 5 Leu Ile Ser Ser Ile 85 Tyr Pro	Ala His Lys Leu Cys 70 Met Arg	Leu Asn Gly Ser 55 Gly Glu Arg	Cys Asn Glu 40 Pro Val Leu Asp Phe 120	Gln 25 Glu Val Gly Tyr Met 105 Leu	10 Leu- Ile Ile Gln Leu 90 Gly Cys	Leu Ser Leu Glu 75 Gly Leu Thr	Ala Val Gly 60 Pro Ala Thr	Gly Val 45 Val Thr Lys Ser Pro 125	Gly 30 Pro Gln Leu Glu Ser 110 Glu	15 Leu Asn Gly Thr Ser 95 Phe	His Arg Gly Leu 80 Lys Glu Asp	
179 181 183 184 187 188 191 192 195 196 200 203 204 207 208 211 212 215	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu Ser Ser	3> OF	EQUENT Leu Leu Lys 35 Asp Cys Val Thr Ala	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe 100 Tyr	Gly 5 Leu Ile Ser Ser Ile 85 Tyr Pro	Ala His Lys Leu Cys 70 Met Arg	Leu Asn Gly Ser 55 Gly Glu Arg Trp Gln	Cys Asn Glu 40 Pro Val Leu Asp Phe 120	Gln 25 Glu Val Gly Tyr Met 105 Leu	10 Leu- Ile Ile Gln Leu 90 Gly Cys	Leu Ser Leu Glu 75 Gly Leu Thr	Ala Val Gly 60 Pro Ala Thr Val Gly	Gly Val 45 Val Thr Lys Ser Pro 125	Gly 30 Pro Gln Leu Glu Ser 110 Glu	15 Leu Asn Gly Thr Ser 95 Phe	His Arg Gly Leu 80 Lys Glu Asp	
179 181 183 184 187 188 191 192 195 196 200 203 204 207 208 211 212 215 216	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu Ser Ser Gln	3> OF	EQUENT Leu Leu Lys 35 Asp Cys Val Thr Ala 115 Val	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe 100 Tyr Arg	Gly 5 Leu Ile Ser Ser Ile 85 Tyr Pro Leu	Ala His Lys Leu Cys 70 Met Arg Gly Thr	Leu Asn Gly Ser 55 Gly Glu Arg Trp Gln 135	Cys Asn Glu 40 Pro Val Leu Asp Phe 120 Leu	Gln 25 Glu Val Gly Tyr Met 105 Leu	10 Leu- Ile Gln Leu 90 Gly Cys	Leu Ser Leu Glu 75 Gly Leu Thr	Ala Val Gly 60 Pro Ala Thr	Gly Val 45 Val Thr Lys Ser Pro 125	Gly 30 Pro Gln Leu Glu Ser 110 Glu	15 Leu Asn Gly Thr Ser 95 Phe	His Arg Gly Leu 80 Lys Glu Asp	
179 181 183 184 187 188 191 192 195 196 200 203 204 207 208 211 212 215 216 219	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu Ser Gln Pro	3> OF	EQUENT Leu Leu Lys 35 Asp Cys Val Thr Ala 115 Val	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe 100 Tyr Arg	Gly 5 Leu Ile Ser Ser Ile 85 Tyr Pro Leu	Ala His Lys Leu Cys 70 Met Arg Gly Thr	Leu Asn Gly Ser 55 Gly Glu Arg Trp Gln 135	Cys Asn Glu 40 Pro Val Leu Asp Phe 120 Leu	Gln 25 Glu Val Gly Tyr Met 105 Leu	10 Leu- Ile Gln Leu 90 Gly Cys	Leu Ser Leu Glu 75 Gly Leu Thr Asn	Ala Val Gly 60 Pro Ala Thr Val Gly	Gly Val 45 Val Thr Lys Ser Pro 125	Gly 30 Pro Gln Leu Glu Ser 110 Glu	15 Leu Asn Gly Thr Ser 95 Phe	His Arg Gly Leu 80 Lys Glu Asp	
179 181 183 184 187 188 191 192 195 196 200 203 204 207 208 211 212 215 216 219 220	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu Ser Gln Pro 145	3> OI O> SI Val Val Gly Leu 50 Gln Pro Phe Ala Pro 130 Ile	EQUENT Leu Leu Lys 35 Asp Cys Val Thr Ala 115 Val	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe 100 Tyr Arg Asp	4 Gly 5 Leu Ile Ser Ser Ile 85 Tyr Pro Leu Phe	Ala His Lys Leu Cys 70 Met Arg Gly Thr	Leu Asn Gly Ser 55 Gly Glu Arg Trp Gln 135	Cys Asn Glu 40 Pro Val Leu Asp Phe 120 Leu	Gln 25 Glu Val Gly Tyr Met 105 Leu	10 Leu- Ile Gln Leu 90 Gly Cys	Leu Ser Leu Glu 75 Gly Leu Thr	Ala Val Gly 60 Pro Ala Thr Val Gly	Gly Val 45 Val Thr Lys Ser Pro 125	Gly 30 Pro Gln Leu Glu Ser 110 Glu	15 Leu Asn Gly Thr Ser 95 Phe	His Arg Gly Leu 80 Lys Glu Asp	
179 181 183 184 187 188 191 192 195 196 199 200 203 204 207 208 211 212 215 216 219 220 223	<213 <400 Met 1 Lys Ala Trp Ser 65 Glu Ser Gln Pro	3> OI O> SI Val Val Gly Leu 50 Gln Pro Phe Ala Pro 130 Ile	EQUENT Leu Lys 35 Asp Cys Val Thr Ala 115 Val Thr	ISM: NCE: Ser Tyr 20 Val Ala Leu Asn Phe 100 Tyr Arg Asp	Gly 5 Leu Ile Ser Ser Ile 85 Tyr Pro Leu Phe	Ala His Lys Leu Cys 70 Met Arg Gly Thr	Leu Asn Gly Ser 55 Gly Glu Arg Trp Gln 135	Cys Asn Glu 40 Pro Val Leu Asp Phe 120 Leu	Gln 25 Glu Val Gly Tyr Met 105 Leu	10 Leu- Ile Gln Leu 90 Gly Cys	Leu Ser Leu Glu 75 Gly Leu Thr Asn	Ala Val Gly 60 Pro Ala Thr Val Gly	Gly Val 45 Val Thr Lys Ser Pro 125	Gly 30 Pro Gln Leu Glu Ser 110 Glu	15 Leu Asn Gly Thr Ser 95 Phe	His Arg Gly Leu 80 Lys Glu Asp	

RAW SEQUENCE LISTING DATE: 06/12/2003 PATENT APPLICATION: US/09/965,640A TIME: 14:30:48

```
225 <212> TYPE: PRT
226 <213> ORGANISM: Homo sapiens
228 <400> SEQUENCE: 5
230 Pro Asp Val Ala Ser Leu Arg Gln Gln Val Glu Ala Leu Gln Gly Gln
231 1
234 Val Gln His Leu Gln Ala Ala Phe Ser Gln Tyr
235
                20
238 <210> SEQ ID NO: 6
239 <211> LENGTH: 33
240 <212> TYPE: PRT
241 <213> ORGANISM: Artificial Sequence
243 <220> FEATURE:
244 <223> OTHER INFORMATION: leucine zipper peptide
246 <400> SEQUENCE: 6
248 Arg Met Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Leu Ser Lys Ile
252 Tyr His Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu Ile Gly Glu
253
256 Arg
260 <210> SEO ID NO: 7
261 <211> LENGTH: 8
262 <212> TYPE: PRT
263 <213> ORGANISM: Artificial sequence
265 <220> FEATURE:
266 <223> OTHER INFORMATION: FLAG peptide
268 <400> SEQUENCE: 7
270 Asp Tyr Lys Asp Asp Asp Asp Lys
271 1
274 <210> SEQ ID NO: 8
275 <211> LENGTH: 26
276 <212> TYPE: DNA
277 <213> ORGANISM: primer
279 <400> SEQUENCE: 8
                                                                            26
280 gggagtctac accctgtgga gctcaa
283 <210> SEQ ID NO: 9
284 <211> LENGTH: 26
285 <212> TYPE: DNA
286 <213> ORGANISM: artificial sequence
288 <220> FEATURE:
289 <223> OTHER INFORMATION: primer
291 <400> SEQUENCE: 9
292 ctgctggaag tagaagtctg tgatgg
                                                                            26
295 <210> SEQ ID NO: 10
296 <211> LENGTH: 30
297 <212> TYPE: DNA
298 <213> ORGANISM: artificial sequence
300 <220> FEATURE:
301 <223> OTHER INFORMATION: primer
303 <400> SEQUENCE: 10
```

RAW SEQUENCE LISTING

DATE: 06/12/2003 PATENT APPLICATION: US/09/965,640A TIME: 14:30:48

304 ggageteaag atggteetga gtggggeget	30
307 <210> SEQ ID NO: 11	
308 <211> LENGTH: 28	
309 <212> TYPE: DNA	
310 <213> ORGANISM: artificial sequence	
312 <220> FEATURE:	
313 <223> OTHER INFORMATION: primer	
315 <400> SEQUENCE: 11	
316 gcattccagc caccattctc gggaagct	28

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/965,640A

DATE: 06/12/2003

: US/09/965,640A TIME: 14:30:49